LDWSF
12.3.8.1 JJ
03/05/10

March 5, 2010

United States Environmental Protection Agency, Region 10
Claire Hong, Remedial Project Manager
Environmental Cleanup Office, ECL-111
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

VIA MESSENGER

Re: Supplemental Request for Information Pursuant to Section 104(e) of CERCLA, for the Lower Duwamish Waterway Superfund Site, Seattle, Washington (the "Supplemental RFI")

Ash Grove Cement Company
3801 E Marginal Way
Seattle, WA 98134-1147
King County Tax Parcels: 7666700350, 7666700390, 7666700395, and 1924049029

Dear Ms. Hong:

This letter is written in response to EPA's Supplemental Request for Information dated November 30, 2009. Responses by Ash Grove Cement Company ("Ash Grove") to the questions contained in the Supplemental RFI are set out below. Documents responsive to this Supplemental RFI are being produced in conjunction with this letter.

We enclose a flash drive containing all responsive documents in PDF form, organized within folders that correspond to responsive questions from the Supplemental RFI. Also on the flash drive are associated Adobe full-text search indexing files. In order to perform a full-text search for words or phrases across all documents, open the file entitled "*Index—Adobe Text Search.pdx". In addition to the flash drive, we enclose a simple index of the documents, each listed according to the Supplemental RFI question to which it responds. Lastly, we attach a log of privileged documents withheld from production.

1. <u>Respondent Information</u>

a. Provide the full legal name and mailing address of the Respondent:

Ash Grove Cement Company
P. O. Box 25900
Overland Park, KS 66225

Ash Grove Cement Company is a Delaware corporation.

b. For each person answering these questions on behalf of Respondent, provide:

i. **full name**
ii. **title**
iii. **business address**
iv. **business telephone number and FAX machine number.**

Overland Park Home Office:

Physical Address:
11011 Cody Street
Overland Park, KS 66210

Mailing Address:
P. O. Box 25900
Overland Park, KS 66225

913 451 8900
Fax: 913 451 8324

Curtis D. Lesslie, Vice President, Environmental Affairs
Robert V. Vantuyl, Corporate Environmental Manager
Eileen Flink, Vice President and General Counsel

Seattle Plant:

3801 E Marginal Way S.
Seattle, WA 98134-1147
206 623 5596
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Craig Puljan, Plant Manager
Gerald J. Brown, Safety/Environmental Manager
Sid Parker, Preventative Maintenance Supervisor

Western Region Office:

5 Centerpointe Drive
Suite 350
Lake Oswego, OR 97035-8651
503 207 2100
503 620 3491 Fax

Kenneth J. Rone, Jr., Vice President, Manufacturing Services West Div. (Retired)
Michael J. Hrizuk, Vice President, Manufacturing

Bellevue Sales Office:

11811 NE 1st Street
Bellevue, WA 98005
425 688 0110
Fax: 425 688 0122

Ralph C. Jones, P.E., Sr. Corporate Project Engineer

2. Site Activities and Interests

2.a. Provide any additional information regarding the settling pond formerly present at the Site. Your initial response to question 2.h. indicated that the pond was dredged periodically before being filled and paved in 1992. Specifically, provide any documentation indicating when the pond sediments were last removed prior to the filling, documentation of the disposal of dredged sediments, and any additional sampling information pertaining to the pond, sediments, and/or underlying soil and groundwater.

When Ash Grove purchased the property at 3801 E Marginal Way (the "East Terminal", the "Seattle Plant", or "Plant") in 1984, it inherited a settling pond used by the previous owners of the existing cement plant. This settling pond was located in the southwestern corner of the Seattle Plant. Ash Grove understands that before its own purchase of the Seattle Plant, the Seattle Plant's prior owner and operator Lone Star Industries ("LSI") caused the settling pond to be dredged in or around 1982. Ash Grove believes it likely that LSI would have utilized the dredged materials as raw material ingredients in the cement manufacturing process. A 1987 report prepared by an EPA consultant, Ecology & Environment, Inc. (included in Ash Grove's original 104(e) production at AGC2H000720), indicates that pond dredging may have occurred in the "late 1970s." Ash Grove has no other knowledge of activities at the Seattle Plant during that time period.

During Ash Grove's ownership of the Seattle Plant, Ash Grove caused the settling pond to be dredged one time, in or around 1986. Ash Grove performed this dredging with the approval of and under oversight by the Department of Ecology. As Ash Grove was not performing cement processing operations at that time, dredged materials would have left the Plant for disposal and been disposed of at an upland site approved by the Department of Ecology.

In 1992, the settling pond was filled and paved at about the same time the Ash Grove Plant was connected to METRO's system. At that time, Gary Merlino Construction Co., Inc. d/b/a Stoneway ("Stoneway"), lessee of a portion of the 3801 E Marginal Way property, constructed a new retention system at the Seattle Plant. Stoneway installed the engineered retention system in and near the same location as the former settling pond. Ash Grove understands that Stoneway brought in fill materials to fill the settling pond prior to paving. Ash Grove is not aware of any additional documents regarding Stoneway's efforts in this regard.

Ash Grove is not aware of additional documents related to the settling pond, dredging of the settling pond, disposal of sediments, or sampling of soil or groundwater other than those documents Ash Grove produced in connection with its response to EPA's original Notice of Potential Liability Pursuant to Section 107(a) and Request for Information dated August 23, 2007 ("RFI").

2.b. Provide any information regarding a second seepage pond identified at the Site in a November 1, 1984, Potential Hazardous Waste Site Preliminary Assessment conducted by the Washington Department of Ecology (Ecology).

Ash Grove did not maintain a second separate formal seepage pond at the Seattle Plant. However, the northwest corner of the Seattle Plant did contain a depression or "low area" that would regularly pond with water. This area, about 10' x 10' in size, was located in the northwestern quadrant of the Plant, just east of the seawall and just west of a former primary crusher building on-site. This may be the "[ ]other seepage pond" referred to in the Department of Ecology's Potential Hazardous Waste Site Preliminary Assessment dated November 1, 1984 and referenced in the Supplemental RFI.

Some water from the Seattle Plant was directed to this second collection area. The Seattle Plant contained underground concrete-lined tunnels in which, prior to 1992, conveyor belts would transport materials through the site. The system was connected to a rock crusher and steel structure that protruded above ground. Water would naturally and regularly seep through the concrete casing and enter the tunnels. Water present in these tunnels consisted of rainwater, surface water runoff, soil seepage, and occasionally some tunnel washdown water from the clearing of the tunnels. To maintain the effectiveness of the conveyor system, Ash Grove operated sump pumps to pump water out of the tunnels, as necessary, and that water would then collect in this northwestern depression.

These tunnels and the area in the northwestern corner represented isolated areas of the Plant not connected to the rest of the Plant's wastewater handling system. Ash Grove did not operate any direct outfall into the waterway from this northwestern area and this area did not drain to an outfall. Rather, water would collect in this area and percolate down through the ground or dissipate through evaporation. Use of this area for water retention or collection was discontinued when the new Plant was constructed in or around 1992. The area is now paved over.

An aerial photo of the Plant has been produced with this Response. Ash Grove is not aware of any additional documents responsive to this Question not produced already.

See Exhibit 2.b. and other documents produced.

2.c. Provide more specific detail as to how the truck wash water and compressor cooling water from loading machinery were handled at the West Terminal during the leasing period from 1987 to 1991. In addition, describe the wastewater, stormwater, cooling water, and any other water discharging practices including any sampling information from the West Terminal. Your initial response stated that

"truck wash water and compressor cooling water from loading machinery were excluded from the NPDES" but does not clearly explain how they were managed.

Ash Grove maintained operations at a second parcel located at 5900 W Marginal Way (the "West Terminal") from approximately 1987 through 1991 under a lease from the property owner, LSI. Ash Grove took the West Terminal over from Kaiser Cement. During Ash Grove's operations, the West Terminal served as a cement terminal with silos and was used for the receipt of imported cement from overseas. Ash Grove offloaded the imported cement from barges to trucks for distribution to Ash Grove's customers. Documents included in Ash Grove's original 104(e) production (AGC2H000013 - 00034) related to this Question 2.c. included an NPDES permit application for the West Terminal that Ash Grove submitted to Ecology on or about April 11, 1988 and related correspondence from the Department of Ecology. No other responsive documents have been located.

According to the recollections of Ash Grove personnel employed at the time of the West Terminal lease, cooling water at the West Terminal was contained within a closed circuit system. Four C-300 compressors were used for filling the West Terminal's eight cement silos with cement offloaded from barges. Cooling water was exchanged in the compressors and then hard-piped to an open galvanized steel basin located at the center of the facility. Ash Grove personnel estimate the size of the basin at approximately 100 gallons. Water from the basin was periodically withdrawn by an adjacent cooling system, cooled, and then pumped back to the compressors. Ash Grove did not discharge compressor cooling water outside the compressor system. Periodically, due to evaporation or the normal operational loss of water in the system, additional water was added automatically to the basin as needed. Ash Grove could not identify additional documentation or other information related to the compressor cooling water at the West Terminal.

Stormwater at the West Terminal was conveyed to an open drainage ditch that flowed into a 15" concrete culvert and then into the waterway. This information is derived from documents included in Ash Grove's original 104(e) production (AGC2H000013 - 00034) including the NPDES permit application for the West Terminal that Ash Grove submitted to Ecology on or about April 11, 1988.

Truck wash water was also generated at the West Terminal facility. Ash Grove used an operational truck rack at the West Terminal to wash the accumulated dust off the top of the trucks. These truck racks were present on the West Terminal site when Ash Grove commenced operations following Kaiser's operations. Ash Grove used these existing truck rack stations in the same manner as its predecessors.

According to an Ash Grove staff member employed at the time of Ash Grove's West Terminal lease, truck wash water used in this process collected on a concrete pad under the rack station and was directed into a concrete lined-gutter that flowed into an earthen ditch. This may be the same ditch described in the NPDES permit application, but this employee has no recollection of the 15" culvert described as receiving water from the

ditch. Instead, the employee recalls that during most times of the year, the ditch allowed the wash water to slowly percolate into the soil or evaporate; however, according to this employee, water from the earthen ditch occasionally did reach the waterway, by cresting the berm of the ditch. He recalls that this occurred only during winter storms or during or following periods of heavy or prolonged rain. Two employees recall that Ash Grove visually monitored the waterway in this area, and do not recall any sediment plumes associated with these discharges or discharges of stormwater from the facility.

On one occasion, Ash Grove re-dug the ditch to increase its effectiveness. The removed materials were piled to the side of the ditch.

Efforts to clarify whether truck wash discharged to the stormwater ditch or whether these were separate discharge areas were unsuccessful. Should additional information come to light, Ash Grove will further supplement its response.

2.d. Provide a copy of the NPDES permit for the West Terminal referenced in your initial response.

Ash Grove does not possess a copy of an approved NPDES permit for the West Terminal facility. Ash Grove is not aware of additional documents related to an NPDES permit for the West Terminal other than those documents Ash Grove already produced in connection with its response to EPA's original RFI.

2.e. Provide all additional information on the removal of Underground Storage Tanks (USTs) from the Site. Your initial response to question 2.b. states that all USTs were removed by 1986. The Annual Report to President Reviewing 1984 provided in the initial response indicated that two were removed in 1985 and an Inter-Office Memorandum dated April 21, 1986, indicated two additional USTs were removed in 1986. Include all documentation of these removals, related sampling, disposal, confirmation or testing for holes or leaks in the removed USTs, materials stored in the USTs, and the composition of the USTs.

Ash Grove understands that the Supplemental RFI's reference to the "Annual Report to President Reviewing 1984" refers to "Ash Grove's Annual Report to the President Reviewing 1985," produced in Ash Grove's response to EPA's original RFI at AGC2D000057 - 00067.

Documents Ash Grove produced in response to EPA's original RFI suggest that Ash Grove removed four USTs from the Seattle Plant, removing two in December 1985 and two in April 1986. These pairs of USTs are believed by Ash Grove to have contained diesel and gas, respectively. There is no indication in the documentation or as recalled by Ash Grove personnel that any of these USTs leaked or were otherwise in poor structural condition when removed. Ash Grove does not possess information regarding the contractors retained to remove these USTs. Ash Grove is not aware of documents related to these USTs or their removals other than those documents Ash Grove already produced in connection with its response to EPA's original RFI.

Ash Grove personnel do recall that Ash Grove caused an additional tank, containing bunker C oil, to be removed from the Seattle Plant at the time of or just prior to Seattle Plant demolition activities in the late 1980s or early 1990s. When the bunker C oil tank was removed and demolished it was inactive and essentially empty. At the time of removal no cracks in the tank were observed. However, one Ash Grove employee recalls seeing a stain or puddle of approximately one gallon of product that spilled to the ground during the tank's removal by a demolition contractor. Ash Grove does not recall the name of the contractor retained to perform this removal and does not possess additional information on this tank, its removal, or the resulting spill.

To Ash Grove's knowledge no USTs remain at the Seattle Plant. Ash Grove is not aware of additional documents related to former USTs at its Seattle Plant other than those documents Ash Grove already produced in connection with its response to EPA's original RFI.

2.f. Describe and provide any documentation regarding where kiln bricks were disposed, quantities disposed, amounts remaining at the Site as fill or otherwise, and any testing or documentation of the composition of the kiln bricks. A trip report from an inspection of the Site conducted for EPA on July 29, 1987, indicated that kiln bricks were disposed at the facility and recycled into the cement process.

In 1987, EPA contracted with Ecology and Environment, Inc. to complete a site inspection of Ash Grove's Seattle Plant ("Trip Report"). The Trip Report provides, in part:

> Prior to 1981, spent kiln bricks were disposed on site. These bricks were removed from the kiln with waste cement crust and dumped in a pile on the southwest corner of the site or spread over the surface of the facility. Mr. Rone said that he has observed brick under the surface of the site during excavation for construction. Mr. Rone estimated that 500 tons of kiln brick were used each year. From 1981 to 1984, the spent kiln brick was recycled in to the cement process. Since 1984 , when clinker manufacture was discontinued, kiln bricks have not been used or disposed of at the facility.

AGC2H000724 (Ecology and Environment, Inc., Trip Report Memorandum (Oct. 15, 1987)). Ash Grove understands the Supplemental RFI is referencing this document in its above question.

The Trip Report memorandum identified above refers to the practice of Ash Grove's predecessor, LSI, which owned and operated the Plant during the referenced 1981 to 1984 time period. During that time, Ash Grove understands that LSI caused spent kiln bricks known to contain chromium to be crushed and reintegrated with raw materials. LSI reconsumed these materials through the process operations at the Seattle Plant. The

regular replacement of kiln brick worn out in the kiln process is an activity common to all cement processing facilities. This recycling of kiln bricks occurred under the direction of Ash Grove's predecessors at the Seattle Plant, and not Ash Grove. Ash Grove believes that LSI collected and disposed of kiln bricks known not to contain chromium off-site at a landfill.

Ash Grove's purchase of the Seattle Plant in 1984 included acquisition of LSI's kiln. At the time of acquisition, the kiln was lined on the interior with kiln bricks and on the exterior by a steel casing. Overall, Ash Grove inherited approximately 20 tons of kiln bricks left at the Seattle Plant. Between the purchase date in 1984, until the Plant was reconstructed in or around 1992, Ash Grove operated the kiln only for a very brief period of time in April 1984 and then again for a seven-day period in August 1984. As a result, Ash Grove did not have the need to replace spent kiln bricks during this time frame, and did not recycle any spent kiln bricks in the Seattle Plant process.

However, in 1988, in preparation for demolition and Plant reconstruction activities at the Seattle Plant, Ash Grove transported the chromium-containing bricks it had inherited from LSI to the Ash Grove plant in Durkee, Oregon for reconsumption in the cement process at that location. A September 25, 1988 memorandum (AGC2E000232-33) suggests that approximately 45 feet (6600 brick) of chromium-containing kiln brick were transported to Durkee. According to the 1988 memorandum, bricks left at the Seattle Plant that were not suspected of containing chromium may have been stockpiled and used as backfill during Plant construction. Ash Grove identified chromium-containing bricks left at the Seattle Plant by prior operators by their coloring. All chromium-containing bricks are black, and Ash Grove maintained a practice of suspecting all black-colored bricks of containing chromium and treating them as such.

Following 1992, after Ash Grove recommenced Plant operations, Ash Grove engaged in the industry practice of regularly replacing worn-out kiln bricks, a process that takes place on approximately an annual basis. After recommencement of operations in 1992, Ash Grove did not use chromium-containing kiln bricks. Kiln bricks replaced during this time frame were disposed of off-site. Ash Grove has no evidence that kiln brick materials were kept at the Seattle Plant and used as on-site fill materials during its operations of the Plant post-1992.

In recent years, Ash Grove has contracted with the Weiks Corporation to haul waste materials, including spent kiln bricks, from the Seattle Plant, to one or more of Weiks Corporation's construction sites for use as fill material. Additionally, on an intermittent basis, spent kiln bricks have been hauled to Pacific Coast Coal Company's site in Black Diamond, Washington. Ecology conducted a Toxic Characteristics Leaching Procedure (TCLP) and determined these hauled brick materials to be non-hazardous. Documents related to the off-site transport and disposal of kiln bricks were produced in connection with Ash Grove's response to EPA's original RFI, and additional documents related to the off-site transport of kiln bricks and waste materials are produced with this Response.

Again, after Plant reconstruction in 1992, Ash Grove has not used any chromium-containing kiln bricks at the Plant. However, in or around 1992, Ash Grove employees did discover and observe suspected chromium-containing kiln bricks in and around the settling pond when Stoneway was installing the engineered retention system. These bricks would have originated with and been placed at this location by a prior owner and operator of the Seattle Plant, and not by Ash Grove.

Regarding the composition of kiln bricks, there are a variety of different types of kiln bricks. They differ in composition depending on the temperature resistance needs, which needs are based on their location in the kiln. Information regarding the composition of bricks used in recent years at the Seattle Plant has been produced with this Response.

See Exhibit 2.f. and other documents produced.

2.g. Provide all information regarding the removal of PCB contaminated soils from the Site in 1986 and referenced in supporting documents included in your initial response, including the Chem-Security Systems Disposal Request dated July 24, 1986 and a letter containing Hazardous Waste Manifests from Crowley Environmental Services dated August 12, 1986. Provide all documentation related to the handling, management, and/or disposal of the multiple PCB contaminated transformers which were identified as having possible leaks in the undated Transformer Data document provided in response to question 2.f. In addition, identify any release, removal, or disposal of PCBs, and any investigation, inspection, or sampling related to PCBs or equipment potentially containing PCBs at the Site.

As described in the documents Ash Grove produced in response to EPA's original RFI, in 1986 Ash Grove contracted with Crowley Environmental Services ("Crowley") to remove and dispose of several precipitator transformers. As part of this work, Ash Grove contracted Crowley to clean up several transformer areas following removal and to construct a primary containment berm for PCB transformers still in use. Crowley cleaned the kiln transformer area and removed all surface dirt from the area. Crowley barreled all removed surface dirt and treated the removed soils, together with all equipment used during the cleaning process, as hazardous waste. Crowley also excavated soils in the slurry transformer area in preparation for installation of a cement slab and primary containment berm. Documents produced in response to the original RFI (AGC2F000294) provide that Crowley sent soil samples for testing at Laucks Testing Laboratories, Inc. Ash Grove produced the hazardous waste manifests for this work with its response to the original RFI. These manifests provide that contaminated soils were disposed of with North American Environmental, Inc. in Tacoma, Washington. The Chem-Security Systems Disposal Request indicates that 8.10 cubic yards of soil were disposed of at Chem-Security Systems. Inc's Arlington, Oregon facility. Ash Grove has no additional information or documents regarding Crowley's soil removal or the Chem-Security Systems Disposal Request other than the information contained in the documents already produced.

Ash Grove does not possess any additional documentation related to the handling, management, and/or disposal of PCB contaminated transformers or suspected-PCB contaminated transformers other than the documents already produced. To the best of Ash Grove personnel's recollection, the undated Transformer Data document was created in or around 1985 or 1986 as part of a site-wide effort to remove all PCB transformers and equipment inherited at the Seattle Plant and replace them with non-PCB containing transformers. Ash Grove contracted with General Electric Company to remove and dispose of electrical equipment to ensure all handling and disposal measures were consistent with applicable laws.

Ash Grove's previously produced documents (AGC2F000932) provide that, by 1991, Ash Grove completed the process of removing all PCB materials and transformers from the Seattle Plant. This included removal and replacement of transformers that had previously been retro filled to reduce PCB levels. Following 1991, no retrofilled transformers remained at the Seattle Plant. EPA inspected the property September 27, 1994, and by letter dated letter dated December 2, 1994, EPA concluded that the inspection did not document any violations of the PCB regulations.

Ash Grove has no knowledge of any additional removal or disposals of PCBs, other than the removals and disposals addressed above and in the documents previously produced. A soil and groundwater investigation in 2008 sampled for, but failed to detect, PCBs at the Plant site. These results are documented in Aspect Consulting, Soil and Groundwater Quality Characterization (Oct. 24, 2008) produced with this Response.

Ash Grove is not aware of additional documents related to PCBs at the Seattle Plant other than those documents included with this Response, or those documents Ash Grove already produced in connection with its response to EPA's original RFI.

See Exhibit 2.s. and other documents produced.

2.h. Provide all information on the release of cement dust to the Duwamish Waterway during or prior to August 1984, which resulted in the filing of a lawsuit against Ash Grove for violation of the Clean Water Act. This release and subsequent action was identified in the Final Data Gaps Report - RM 0.0-0.1 East published on December 3, 2008, prepared for Ecology.

Ecology's Summary of Existing Information and Identification of Data Gaps Final Report for the Lower Duwamish Waterway River Mile 0.0-0.1 East, prepared by Ecology & Environment, Inc., and dated December 2008 ("Final Data Gaps Report") notes, in part:

> The EPA filed a lawsuit in the U.S. District Court in August 1984 against Ash Grove Cement Company for violation of the Clean Water Act. This citation was in response to an undetermined amount of cement dust being spilled into an unknown area of the Duwamish River.

Final Data Gaps Report at 4-19. Ash Grove understands the Supplemental RFI is referring to this issue in its above question. The Final Data Gaps Report presumably is referring to the release of cement dust to the waterway that occurred in 1985, not 1984 as stated in the report. Of note, this release and subsequent lawsuit is the same release referenced in question 2.k., below. Ash Grove provides information related to this release below.

Ash Grove imported clinker (a cement intermediate) on barges to the East Terminal. As part of these operations, clinker dust is generated and this dust accumulates, essentially as hardened cement (equivalent to concrete), in the baghouse at the Seattle Plant. By 1985, the baghouse needed to be serviced. Large amounts of hardened cement had accumulated in the baghouse over a period of approximately two to three years during the course of LSI and Ash Grove's regular operations. On or about April 8, 1985, an Ash Grove crew attempted to clean the hardened cement from the baghouse. In the process of this cleaning effort, hardened cement chunks fell onto Ash Grove's tidelands adjacent to the waterway.

The United States Coast Guard ("USCG") investigated the incident. Upon being contacted by the USCG, Ash Grove immediately ceased this activity and prevented further releases from that cleaning effort from entering the waterway. Approximately four months later, in or around August 1985, the United States filed a lawsuit against Ash Grove, alleging violation of the Rivers and Harbors Act of 1899 based on the April release. The United States and Ash Grove resolved this issue with Ash Grove paying a $5,000 fine.

2.i. Provide all information regarding a Gary Merlino Construction Co. employee pumping water directly from an excavation at the Site to the Duwamish Waterway during or prior to February 1992. This event was identified in the Final Data Gaps Report - RM 0.0-0.1 East published on December 3, 2008, prepared for Ecology.

The Final Data Gaps Report describes an incident in which a third party pumped water into the waterway from the East Terminal, noting in part:

> [I]n February 1992, an investigation found that a Merlino employee pumped water from an excavation directly into the river and a complaint was filed with the U.S. Coast Guard (Ecology 2007).

Final Data Gaps Report at 4-20. Ash Grove understands the Supplemental RFI is referring to this issue in its above question.

The acts addressed in this question and referenced report resulted from the acts and operations at the Seattle Plant of Gary Merlino Construction Co., Inc. d/b/a Stoneway ("Stoneway"). In or around 1987, Stoneway leased a portion of the Seattle Plant from Ash Grove and operated a ready-mix concrete plant and aggregate storage facility at the

property. In or around 1992, Stoneway was overseeing and directing the excavation of the underground containment system as part of efforts to replace the settling pond at the Plant site. As part of that excavation effort, Stoneway encountered water that it pumped out and into a hose that discharged to the waterway. Ash Grove was not involved in these efforts and no Ash Grove employees participated in this excavation or resulting pumping and discharge. Ash Grove was not aware of the pumping and discharge while it was occurring. The United States Coast Guard initiated an investigation of the incident. Ash Grove directed Stoneway to reroute water being pumped out to Ash Grove's settling pond, and then confirmed this solution with the Coast Guard and Ecology. This incident is further described in the Ash Grove Progress Report for Week Ending February 29, 1992, which was included in the documents Ash Grove produced in response to EPA's original RFI (AGC2H000951).

2.j. Provide all information regarding a reported 250 ft. by 500 ft. sheen reported on the surface of the Duwamish Waterway near the Site on May 21, 1998. This incident was reported to the National Response Center (NRC) and recorded in Incident Report #438069.

Ash Grove does not have any information regarding the sheen reported to the National Response Center (NRC) and recorded in Incident Report # 438069 (May 21, 1998). Ash Grove notes that the NRC Incident Report it obtained through EPA on this event indicated the involvement of a "VESSEL" and only that the incident was "NEAR ASHGROVE CONCRETE." Ash Grove does not possess any independent information regarding the report and does not possess any information indicating this sheen was associated with Ash Grove or its operations at the Seattle Plant.

See Exhibit 2.j. and other documents produced.

2.k. Provide all information regarding a release to the Duwamish Waterway on April 8, 1985, including the amount and identity of the released substance and a description of any resulting clean-up action. The notification from the United States Coast Guard dated April 8, 1985, and provided in your initial response, identified this release but provided limited information.

See response to Supplemental RFI question 2.h., above. The notification from the United States Coast Guard, dated April 8, 1985 (AGC2E000317) was the notification resulting from the United States Coast Guard's response and investigation of the incident described in the answer to Question 2.h.

2.l. Provide all information regarding the February 1992 overfilling of a silo and resulting spill including the amount and identity of the released substance and a description of any resulting clean-up action. The Inter-Office Memorandum dated February 15, 1992 provided in your initial response, identified this release but provided limited information.

Ash Grove personnel do not specifically recall this incident. Generally, when silos are overfilled, cement, which is a fine powder, falls on top of the silos or to the ground below and a portion is carried away by the wind. When this has occurred at the Seattle Plant, these malfunctions are readily apparent, the system is immediately shut down and the spilled product cleaned up.

To prevent these events, Ash Grove has been and continues to be vigilant in ensuring that safety measures, including high level indicators for the silos, are properly functioning at all times. It is Ash Grove's business protocol and practice to report these incidents, as was required, to the Puget Sound Clean Air Authority ("PSCAA").

2.m. Provide all information regarding air emissions, quality, and permitting at the Site including but not limited to:

i. All former and present permits;

ii. Occurrences of violations, penalties, citations, and deficiencies; and

iii. Investigations, inspections, sampling, and reports generated by Respondent and/or others.

Ash Grove previously submitted extensive air-related information about the Seattle Plant to Region 10 in response to EPA's two Clean Air Act ("CAA") Section 114 information requests. The Section 114 requests sought comprehensive information about the Seattle Plant and its compliance with federal and state air regulations. Ash Grove conducted an exhaustive search of the Plant's records to ensure its responses to the Section 114 requests were accurate and complete. For its response to Question 2.m., Ash Grove therefore started with (and has attached) the documents it previously provided in its Section 114 request responses that reasonably relate to air emissions, quality and permitting at the Seattle Plant.

In answering Questions 2.m.i., 2.m.ii and 2.m.iii, Ash Grove has supplemented its Section 114 request responses with certain information that EPA did not request in that context. EPA's Section 114 requests did not, for example, cover the time period between Ash Grove's acquisition of the Seattle Plant in 1984 and 1990, when Ash Grove received preconstruction approval and permits to construct a new portland cement manufacturing facility there. Accordingly, Ash Grove has added to its Section 114 request responses documents that relate to air emissions, quality and permitting from the pre-1990 time period. For the post-1990 time period, Ash Grove has augmented its Section 114 request responses as described below.

i. All former and present permits;

With its Section 114 request responses Ash Grove provided copies of the Plant's correspondence with its air permitting authority (i.e., Puget Sound Clean Air Agency or "PSCAA", formerly the Puget Sound Air Pollution Control Agency or "PSAPCA")

concerning the installation or modification of emitting units. Those materials, which are attached, include the vast majority of air permits issued to the Seattle Plant, as well as related correspondence (e.g., notices to construct, applicability determinations, etc.). Among other things, those documents address process modifications at the Plant which resulted in increased emissions.

The Section 114 requests did not require Ash Grove to provide its CAA Title V operating permit, presumably because EPA already possessed it. Ash Grove has attached a copy of its current Title V permit (#13117), the permit statement of basis and the attachments to both documents. Ash Grove did not interpret Question 2.m.i to request copies of its Title V permit applications or routine Title V monitoring data (e.g., daily magnehelic readings). We do not believe such information to be responsive to the Supplemental RFI or relevant to the environmental conditions that are the subject of the Lower Duwamish Superfund Site action. However, please notify us if you are interested in having Ash Grove supplement its response.

In addition to the Title V operating permit, we have provided the two approval orders obtained by the Plant from PSCAA since the Section 114 request responses were submitted.

ii. Occurrences of violations, penalties, citations and deficiencies; and

EPA's Section 114 requests did not focus on collecting documents related to the Seattle Plant's compliance history. Accordingly, for its response to Question 2.m.ii, Ash Grove has provided all documents in its possession related to enforcement or pre-enforcement actions taken by the Plant's air permitting authority. Specifically, we are providing status reports, written warnings, notices of violation, orders, penalties, and letters prepared by PSCAA (or PSAPCA) as well as correspondence prepared and other documents provided by Ash Grove to the permitting authority related to such actions. Documents related to third party communications or unrelated to agency enforcement were not considered responsive.

iii. Investigations, inspections, sampling and reports generated by Respondent and/or others.

For its response to Question 2.m.iii, Ash Grove has provided reports and documents in its possession related to investigations, inspections, and sampling at the Seattle Plant (and which relate to air quality, emissions or permitting) that it previously compiled and submitted with its Section 114 request responses.

As indicated above, in responding to Question 2.m, Ash Grove started with the materials it prepared to address EPA's Section 114 requests. The following paragraphs explain how Ash Grove adapted its exhaustive Section 114 request responses for purposes of answering Question 2.m.

Relevant documents from Ash Grove's Section 114 request responses include the annual air emissions inventory statements for the Seattle Plant provided to the permitting authority. Ash Grove does not possess copies of the annual air emissions inventory statements prior to 1995. The annual statements for the post 1995 period appear in different formats. From 1994 through 2000, the statements were prepared in a narrative form. Starting in 2000, Ash Grove submitted annual emissions information to PSCAA in a spreadsheet provided by the agency. The emissions values presented in the PSCAA spreadsheet were derived using emissions worksheets, which are also provided. Consistent with PSCAA's direction, the emission worksheets only address non-fugitive emission sources. In response to EPA's October 2007 Section 114 request, Ash Grove surveyed the concentrations and rate of emissions from each activity at the Seattle Plant that had the potential to produce emissions, fugitive or non-fugitive, of any regulated air pollutant. Information resulting from that survey is included here.

Ash Grove is providing all of the emissions testing documents previously submitted to EPA as part of the Company's Section 114 request responses. Those documents consist of the summaries of emission tests for nitrogen oxides, sulfur oxides, particulate matter, carbon monoxide, volatile organic compounds and dioxin/furan. Test summaries for other pollutants, such as individual hazardous air pollutants other than dioxin/furan, were not included in Ash Grove's Section 114 request responses (and are not included here) because those pollutants are not federally regulated for the Seattle Plant. That said, some of the summaries provided refer to both regulated and unregulated pollutants. Where that is the case, we have not redacted test results related to unregulated pollutants from the summaries provided. We have not included emissions testing documents that were outside the scope of the Section 114 request.

Another subset of documents provided in the Section 114 request responses and attached here concern the Seattle Plant's implementation of and compliance with applicable CAA New Source Performance Standards ("NSPS") and National Emissions Standards for Hazardous Air Pollutants ("NESHAP"). Also provided are the Toxic Release Inventory program reports (Form R reports) submitted as part of Ash Grove's Section 114 request responses, which estimate the Plant's releases to the air.

Consistent with Questions 2.m.'s scope, Ash Grove has attempted to limit its response to documents reasonably related to air emissions, quality or permitting. For that reason, Ash Grove has not provided documents that address equipment maintenance, replacement dates, destruction and removal efficiencies, quality assurance / quality control, CEM certification, equipment design, monitoring techniques or recordkeeping practices. Although documents relating to emissions control equipment and emission control techniques are not included, please note that the Plant employs a comprehensive set of control and techniques to, among other things, minimize fugitive dust emissions. The Plant's fugitive emissions reduction mechanisms include water suppression techniques (employed on paved roads, during barge unloading, in the raw material conveyors, on material stockpiles, etc.), sweeping and other dust management practices,

enclosures (e.g., the clinker shed) and emissions control devices. These mechanisms enable the Seattle Plant to keep its fugitive dust and fallout to a minimum.

Finally, as indicated above, Ash Grove has provided summaries (yearly totals) of emissions data that have been compiled from the continuous emission monitoring systems ("CEMS") that support the emissions reported to the air agency for NOx, CO, and SO2. The Plant's CEMS gather data every 10 seconds of every hour of every day. Although Ash Grove included portions of its raw CEMS data with its Section 114 request responses, we have not supplied detailed (minute-by-minute) raw CEMS data here given that we have provided the annual summaries of those data, as previously reported to the permitting authority. Similarly, we have not provided technical operating or maintenance information or the detailed continuous parametric monitoring data addressing inlet temperature to the baghouse for the Plant's main stack. Our impression is that such data were not requested.

See Exhibit 2.m. and other documents produced.

2.n. Provide documentation of any analysis on, testing of, or information on the composition of the waste oil burned in the kiln at the Site as described in your initial response to question 2.d. and the 1997 Waste Reduction / Waste Minimization document provided in your initial response.

A limited amount of Plant-generated used oil was burned at the facility pursuant to an approval order issued in January of 1995. This approval order and another issued in May of 2007 are included in Exhibit 2.m. Other information responsive to this RFI question is produced at Exhibit 2.n.

See Exhibit 2.n., 2.m., and other documents produced.

2.o. Provide information or a statement that clarifies whether or not in 1995 dredging of approximately 10,000 cubic yards of sediment from the berthing area occurred, as referenced in the August 2001 Biological Evaluation provided in your initial response. If the dredging occurred, provide any and all documentation regarding this event, disposal of the sediments, and any related sampling reports.

The Biological Evaluation for Material Recovery at Offloading Conveyor ("Biological Evaluation") prepared for the United States Army Corps of Engineers provides, in part:

> The existing waterfront derricks, and off-loading conveyor systems are believed to date from the 1970s and were updated in the 1990s. The facility's waterfront berths were last dredged in approximately 1995. At that time, approximately 10,000 CY of sediment was removed from the berth along the breasting face to the wharf and dolphins.

AGC2C000031 (Dan Moriarity, Biological Evaluation (Aug. 2001) (U.S. Army Corps of Engineers)). Ash Grove understands the Supplemental RFI is referring to this issue in its above question.

Ash Grove does not recall specifics of the described 1995 dredging event, as distinguished from other dredging events at the Seattle Plant. Ash Grove conducted and continues to conduct periodic maintenance dredging of the Seattle Plant's berthing area and south dock area. The dredging operations are conducted approximately once every two or three years under approvals and permits of the United States Army Corps of Engineers, and state and local regulators, as required.

Typically, in the early and mid 1990s, Ash Grove collected dredged materials and impounded them in a lined containment area. Then, periodically, Ash Grove contracted for the disposal of these materials as provided for and pursuant to the respective Army Corps permit. As a general matter, prior to 1992 it was Ash Grove's practice to dispose of dredged materials at off-site upland locations. Following 1992, it was Ash Grove's practice to recycle and reconsume dredged materials into the cement manufacturing process.

Ash Grove is not aware of additional documents related to the dredging event referenced in the Biological Evaluation other than those documents Ash Grove already produced in connection with its response to EPA's original RFI.

2.p. Provide all information regarding the source of and dredging associated with the "river bottom dredging" stored at the East Terminal and referenced in an Inter-Office Memorandum dated December 15, 1986 provided in your initial response.

The dredged materials described as the "river bottom dredging" referenced in the December 15, 1986 Inter-Office Memorandum refers to dredged materials left over on-site by the prior property owner, LSI. These dredged materials were located in the southwest quadrant of the Plant site on either side of the existing rail track. Ash Grove had these materials removed in or around 1988 in preparation for Plant reconstruction activities. Ash Grove contracted to have these materials taken off-site and properly disposed at an upland site. Ash Grove does not recall or have records indicating to which upland facility these materials were removed.

Documents containing sketches and calculations regarding the size and location of these dredged materials are included in the documents provided in connection with Ash Grove's response to this Supplemental RFI.

See Exhibit 2.p. and other documents produced.

2.q. Describe the relationship between Respondent and the two individuals employed by Lafarge North America, Inc. (Lafarge), and listed in response to question 3.d. Additionally identify any connection between Respondent and Lafarge.

Nate Fernow – Mr. Fernow was employed with Ash Grove from September 22, 1980 to May 30, 1997. During this time Mr. Fernow held various positions, the last one being the Assistant Plant Manager of the Seattle Plant.

Pat Noon – Mr. Noon was employed with Ash Grove from September 12, 1993 to July 14, 2000. Mr. Noon's last position was the Chief Chemist of the Seattle Plant.

Ash Grove's Seattle Plant and Lafarge's Seattle plant are competitors, but do maintain a working relationship. Over the years the Ash Grove and Lafarge plants have brought cement, clinker, or raw material samples to the other for analysis when the other plant's analyzing equipment has been down. Additionally, the plants may periodically exchange raw materials and equipment, as needed in support of their respective cement operations. Ash Grove also purchases limestone from Texada Quarry Limited, a company owned by or related to Lafarge. Ash Grove and Lafarge are not related entities and have no formal corporate connection.

2.r. Provide all information regarding the drilling and sampling at the Site that was carried out by RZA in 1989 and referenced in an Inter-Office Memorandum dated March 27, 1989 provided in your initial response. Specifically include any report or sampling data from the event.

Ash Grove retained Rittenhouse - Zeman & Associates, Inc. ("RZA") to conduct a geotechnical evaluation of the Seattle Plant in preparation for the siting of the new cement plant. We understand RZA is now known as Zipper-Zeman Associates, Inc. RZA's scope of work included identifying and calculating appropriate and allowable soil bearing and load levels for construction purposes. RZA prepared geotechnical reports as a result of this work. Documents produced by Ash Grove in response to EPA's original RFI (AGC2H000123) indicate RZA produced the following reports:

Rittenhouse - Zeman & Associates, Inc., "Preliminary Geotechnical Engineering - Ash Grove Cement West, Inc., Seattle Plant Expansion" (Nov. 1988).

Rittenhouse - Zeman & Associates, Inc., "Preliminary Geotechnical Engineering - Ash Grove Cement West, Inc., Seattle Plant Expansion, Supplement" (Apr. 1989)

Ash Grove has been unable to locate these RZA reports.

RZA did not conduct any environmental sampling or environmental site assessment activities as part of this contracted work. Such sampling or assessment would have been outside the scope of RZA's work at the Plant site, which was limited to geotechnical analysis.

2.s. Provide all documents not previously provided in response to the initial Request for Information, or otherwise provided in response to this Supplemental Information Request, regarding environmental conditions of the Site.

Environmental conditions of the Site includes information related to soil, sediment, water (ground and surface), and air quality, such as, but not limited to:

i. Any spill, leak, release, or discharge of a hazardous substance, waste, or material at or near the Site;

ii. Occurrences of violations, citations, deficiencies, and/or accidents concerning the Site;

iii. Remediation or removal of contaminated soils, sediments, or other media at the Site; and

iv. Investigations, inspections, sampling, and reports generated by Respondent and/or others regarding the Site and surrounding area.

As an active industrial facility, malfunctions in Plant equipment or other minor incidents have occurred on occasion that have resulted in the escape of small volumes of hydraulic oil or fuel from Plant machinery. Ash Grove has concluded that unless there was evidence suggesting that oils or fuels reached the environment, the release posed no threat to soil, groundwater or surface water at or near the Site. An example of such a situation could be a hydraulic oil leak onto an impervious system that was contained and expeditiously cleaned up. Such incidents were deemed non-responsive to this Supplemental RFI. Documents that are responsive to this Question 2.s are produced as Exhibit 2.s, except for all documents related to air emissions, quality and permitting, which we are addressing under Question 2.m and are producing as Exhibit 2.m.

2.t. Provide any available site diagrams, plans, and maps depicting the East Terminal prior to 1973 and currently.

See Exhibit 2.t. and other documents produced.

3. <u>Compliance with this Request.</u> Describe all sources reviewed or consulted in responding to this request, including, but not limited to:

a. the name and current job title of all individuals consulted;

Kenneth J. Rone, Jr., Vice President, Manufacturing Services West Div. (Retired)

Michael J. Hrizuk, Vice President, Manufacturing

Curtis D. Lesslie, Vice President, Environmental Affairs

Robert V. Vantuyl, Corporate Environmental Manager

Craig Puljan, Seattle Plant Manager

Gerald J. Brown, Seattle Plant Safety/Environmental Manager

Sid Parker, Seattle Plant Preventative Maintenance Supervisor

Ralph C. Jones, Senior Corporate Project Engineer

Dan Peters, Louisville Plant Manager

b. the location where all documents reviewed are currently kept.

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3801 E Marginal Way, Seattle, WA 98134-1147

5 Centerpointe Drive, #350, Lake Oswego, OR 97035-8651